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St. Louis Metro Area Rail Gateway Enterprise

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DRAFT ENVIRONMENTAL IMPACT STATEMENT

Technical Supplement

COMMON TRAILER ON FLAT CAR YARD

U.S. Department of Transportation

Illinois Department of Transportation

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PRINTED IN U.S.A.

TECHNICAL SUPPLEMENT

COMMON TRAILER/CONTAINER-ON-FLATCAR YARD

Prepared for:

Federal Railroad Administration
Illinois Department of Transportation
325 Missouri Avenue
East St. Louis, Illinois 62201

Prepared by:

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St. Louis, Missouri

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EXECUTIVE SUMMARY

One of the major goals of the St. Louis Metro Area Rail Gateway Enterprise is to provide opportunities for economic and community development. Most involved parties have agreed that the best way to reach this goal is to free land now occupied by rail facilities for redevelopment. One objective of the studies performed has therefore been to remove railroad activity/operations from along the east side of the Mississippi River. Once accomplished, this prime riverfront property would become available for alternative land uses. In connection with this effort, it was seen as necessary to provide replacement Trailer-on-Flatcar (TOFC) yard locations for two railroads who currently have such activities on the Riverfront. During Phase I and II of the MARGE Project, additional railroads expressed interest in engaging in a Common TOFC yard operation; therefore, various sites were chosen and then analyzed for the purpose of selecting one suitable location to be examined in detail for development.

The major criteria employed to select a recommended site for detailed evaluation were as follows:

- Convenient access to and from mainline rail corridors for participating railroads
- Convenient access to and from the TOFC yard for highway motor carriers
- Close proximity to a major classification yard
- Sufficient land for development (approximately 300-600 acres)
  - to handle projected volume of traffic
  - for storage of trailers and flatcars
  - to provide for future expansion
- Minimum community and environmental impacts.

A location known as the Green Heron site is recommended for development of a Common TOFC Yard. It is located in the northwest quadrant of the interchange of Illinois Route 203 and Interstate Highway 55/70, to the northeast of East St. Louis in what is mostly an unincorporated area. This location provides good, central access to all interested rail carriers, convenient access to the existing highway system (Route 203 is a four-lane divided highway adjacent to the site, with a full interchange at Interstate 55/70), is in close proximity to a major classification yard for rail-to-rail interchange of TOFC traffic, and has sufficient land available for construction and expansion. Finally, the community and environmental impacts associated with this site are limited. Two or three small businesses, some 57 acres of wetland and 190 acres of potential wildlife habitat would be displaced by construction. However, adequate mitigation measures are available.

This report summarizes the operational and cost analyses performed on the Common TOFC Yard, and documents the study of alternative sites, which led to the recommendation of the Green Heron site.

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PROJECT DESCRIPTION

Background

The St. Louis railroad complex, alternately called a "gateway" or a "terminal", is of major importance to the national railroad network, and its vitality is critical to the industrial and economic health of the region. Geographically, it lies near the nation's center. Situated on the banks of the Mississippi, the Gateway takes in portions of the States of Missouri and Illinois. On the west side, the majority of the rail facilities lie near the river. On the east side, however, the network extends eastward some five miles to include the Alton & Southern (A&S) Corridor east of Washington Park. The major Illinois communities within the project area are East St. Louis, Granite City, Madison, Venice, Brooklyn, Cahokia, Centreville, Alorton, Dupo, Washington Park and Fairmont City. The southern boundary is the Bixby Rail Junction south of Dupo, and the northern boundary is Lenox Rail Tower in Mitchell. Exhibit A shows the St. Louis Gateway area.

The St. Louis Gateway is the second largest rail traffic routing center in the nation. The network includes track or facilities belonging to 14 major (Class I) railroad companies, and 3 Class II (switching) carriers. There are approximately 82 miles of mainline corridors in the gateway area. The sorting of cars into cuts, or groups, for delivery to individual railroads is mainly accomplished in two large common classification yards, Madison Yard on the north and Gateway Yard on the south. Specific classifications of cuts into trains destined for distant points in the country are performed in a series of "home" yards where the individual railroads also handle trailer traffic. Gateway Yard is operated by the Alton and Southern Railroad, while the Terminal Railroad Association (TRRA), a corporation composed of eleven railroads operating in the complex, manages the functions of Madison Yard. Individual roads are charged by either of these switching carriers for the rail cars which go through the classification process in their facilities.

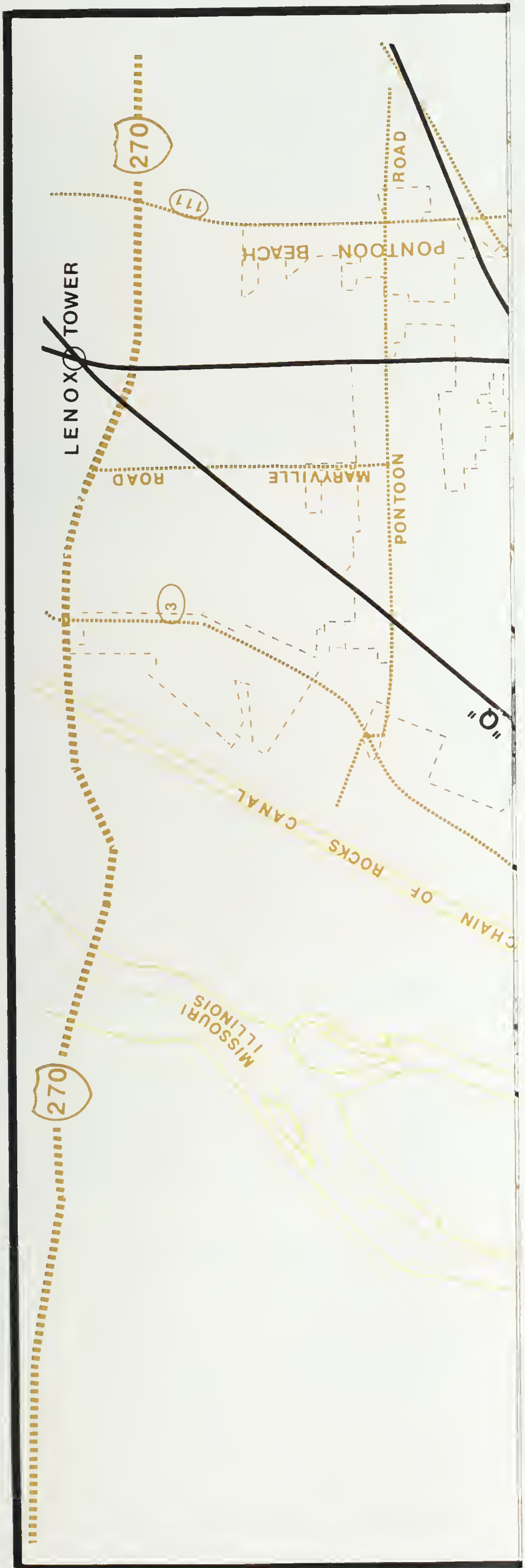
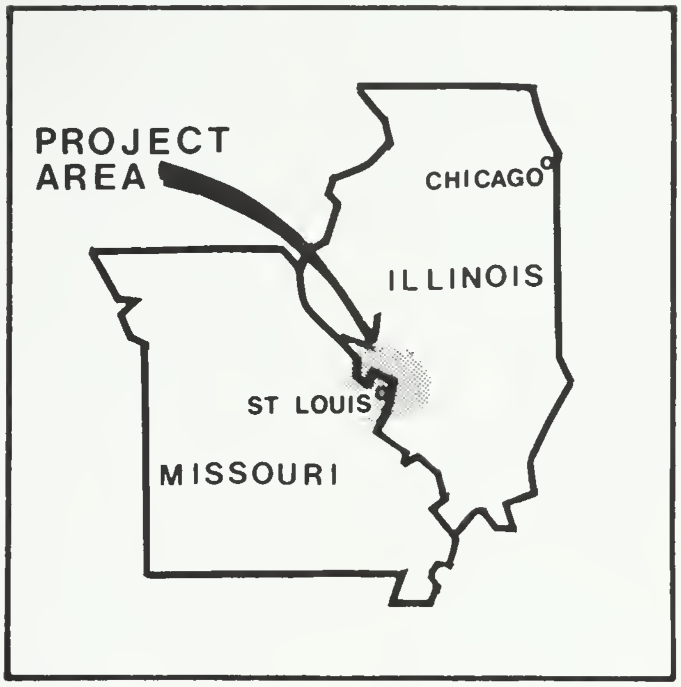


EXHIBIT A

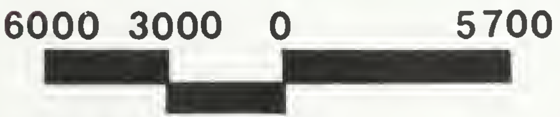
STUDY AREA



VICINITY MAP

LEGEND

ROUTE 3 RELOCATION AREA	░
RAILROADS	─
INTERSTATES	┅
PROPOSED RAILROAD YARD	■
CITY STREETS	┈
EXISTING RAILROAD YARD	▓

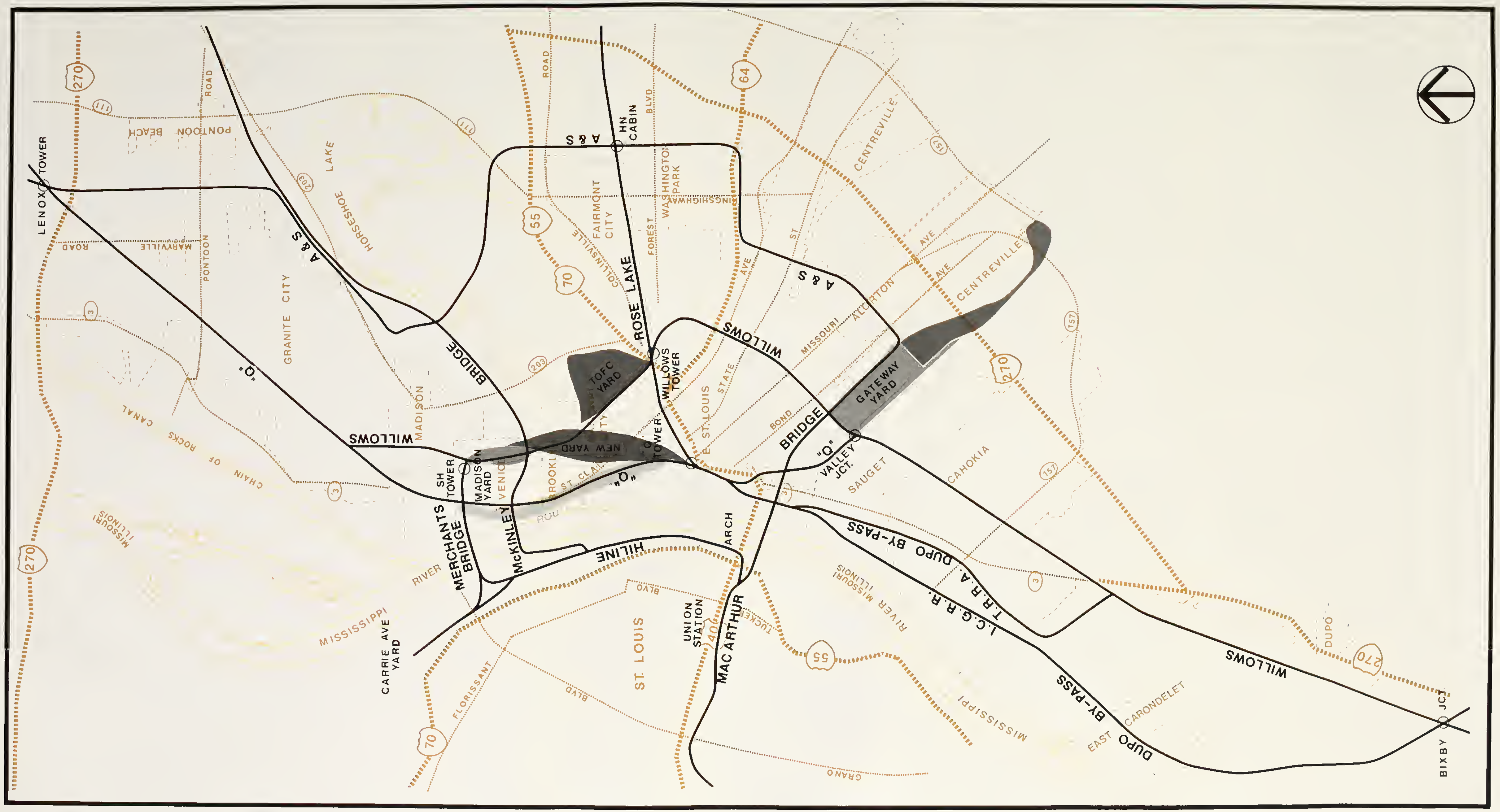


SCALE IN FEET

ST. LOUIS MARGE PROJECT
SVERDRUP/ENVIRODYNE/KNIGHT

EXHIBIT A

STUDY AREA



VICINITY MAP

LEGEND

- ROUTE 3 RELOCATION AREA ▨
- RAILROADS —
- INTERSTATES ┈
- PROPOSED RAILROAD YARD ■
- CITY STREETS ┈
- EXISTING RAILROAD YARD ▨

ST. LOUIS MARGE PROJECT
SVERDRUP/ENVIRODYNE/KNIGHT

Railroad freight terminals, such as the one in St. Louis, are typically bottlenecks in the operation of rail systems. Increased rail traffic and age have reduced the efficiency of terminal operations and shipments often encounter excessive delays moving through congested switching and classification facilities. Facilities built early in the development of the rail system have become obsolete, but have continued to occupy sizable amounts of land, constraining land use patterns and forming barriers to social and commercial activity.

In the St. Louis Gateway the situation is worsened by the continued presence of yards and tracks originally built near the river to hold cars awaiting the ferry crossing. These facilities became unnecessary as bridges were built and were used less and less until, in some cases, they were virtually abandoned. As in other urban rail terminals, this has served as a blighting influence on the area's economic development. Further, underutilized railroad properties do not yield tax revenues proportional to the amount of land they cover. The complicated network of yards and track has also produced a contorted street system where delays to vehicular traffic are frequent and lengthy. This combination of problems attributable to railroad influences has lead the Federal Railroad Administration (FRA), in concert with state and local officials, to seek ways to improve rail operations and to create valuable urban development opportunities by freeing riverfront land.

St. Louis Metro Area Rail Gateway Enterprise

The efforts of the FRA toward resolving the problems of the St. Louis Gateway through railroad improvements were focused into a three phase program entitled the Metro Area Rail Gateway Enterprise or MARGE. The program focused on accomplishing the following three objectives:

- To improve the efficiency of railroad operations within the St. Louis Terminal
- To reduce rail/community conflicts
- To provide opportunities for economic and community development.

Phase I, which was successfully completed in December, 1977, was limited to the development and preliminary examination of operationally feasible physical restructuring alternatives. This initial study was jointly directed by the Federal Railroad Administration and all the 17 railroads operating in the Terminal.

Phase II, which was begun in January, 1979, is a more comprehensive study to refine the restructuring plans and resolve the various railroad institutional issues as well as the community and environmental impact issues. Phase II includes a estimation of costs and benefits for each of the railroads involved, together with a comprehensive cost/benefit analysis of the railroad restructuring project, and will culminate in the publication of an Environmental Impact Statement. Managed by the Illinois Department of Transportation (IDOT), under contract to the FRA, Phase II has sought active involvement by the various local communities in the Gateway area, and continued the strong railroad role of Phase I.

Phase III involves final design engineering and actual construction of improvements to the rail yards and corridors in the terminal. It begins after an alternative plan for the restructuring is selected.

Restructuring Alternatives

There are currently some 63 railyards in the St. Louis Gateway. The MARGE project proposes consolidation of many of the smaller rail yards into two or three larger yard facilities. Three "build" alternatives are fully evaluated. Each alternative differs by the number of common carrier yards and by the routing of the corridor traffic. In addition, the existing 1979 conditions and the year 2000 "No Build" alternative are analyzed and compared.

The actual yard restructuring alternatives exhibit differences in both the number of yards which would be constructed and the manner in which those yards would operate:

- Two-Yard Alternative - This plan calls for the expansion of the two existing classification yards. The Gateway Yard, located south of East St. Louis, would be expanded eastward. This area is partly within the boundaries of Centreville, Illinois and is currently agricultural and residential. The Madison Yard, which is just east of Venice, would be modified and expanded south past the residential areas of Brooklyn and National City.

- Three-Yard Directional Alternative - This plan involves the expansion of Gateway Yard, minor improvements to Madison Yard and the construction of a third yard, the "New Yard". This third yard would be located just south of Madison Yard, adjacent to the town of Brooklyn. Madison Yard would then function as an industrial support yard with the classification functions transferred to New Yard. The Directional distinction refers to the operational plan for the yards, which would have one yard handle trains coming from the East and headed West, and the other coming from the West and headed East.

- Three-Yard Bidirectional - This plan is distinguished from the above only in the operational plan of car and train routing. Each yard would route traffic in all directions. The physical configurations of the yards would be similar to the Directional Plan, except that the New Yard would be located approximately 200 feet further from the residential areas of Brooklyn, and that the expanded Gateway Yard would be constructed about 200 feet farther south from the housing areas of Centreville.

- No-Build Alternative - As a bench mark against which to analyze the "build" alternatives, a "no-build" situation has also been studied. This plan assumes that no improvements are made to the Gateway terminal. The No-Build Alternative assumes that the same traffic levels will exist in St. Louis in the Year 2000 as are projected for the Build cases. This traffic, to the extent it overtaxes the common classification yards, would be handled at individual rail yards.

Several elements of the consolidation are the same across all the "build" alternatives.

- A segment of Illinois Route 3 would be relocated in order to bypass the expanded yards. The designated section begins just north of Merchants Bridge in Madison County as four-lane highway and continues 3 miles south as a two-lane road through Venice and Brooklyn, past National City, ending at St. Clair Avenue in East St. Louis. The relocation would provide a two- or four-lane, limited access highway for this distance.

- A common trailer-on-flatcar (TOFC) yard would be constructed east of Brooklyn and north of East St. Louis. The location is convenient to a major interchange connecting Illinois Route 203 and Interstate 55/70, providing excellent access for trucks. A major rail corridor runs just west of the site. Eight or nine of the fourteen Class I carriers would consolidate their TOFC, or piggyback operations into that one yard.

- There are approximately 82 miles of main line rail corridor in the project area and much of this would be upgraded under all of the build alternatives. Track would be physically improved by laying new or replacement track and modern centralized signaling systems would be installed. Several new rail connections or interlockings would be constructed, but the locations of the corridors and existing interlockings would remain the same. Rail operations and train routings may vary across alternatives, but the basic corridor network does not.

- Seventeen or eighteen grade-separation structures are warranted under all the build alternatives, due to the large delay- and collision-related conflicts which occur in the project area. Seven of these would be warranted because of yard expansions; the remainder are warranted due to conflicts along the rail corridors. Nine of these structures would also be warranted under the No-Build Alternative.

BACKGROUND

In order to accomplish one of the major goals of the overall project and free prime land for redevelopment, it was determined in Phase I that the current Trailer-on-Flatcar (TOFC) facilities on the Mississippi Riverfront needed to be relocated. At the same time, relocation of these facilities, belonging to the Chessie System, or Baltimore and Ohio (B&O), and the Louisville and Nashville (LN) Railroads, would provide an opportunity to address both other project goals: to reduce rail/community conflicts and to improve the efficiency of rail operations.

No large Common TOFC facilities currently exist in the nation, so far as this study has been able to determine. However, there are obvious benefits to such a facility. Currently, all 14 linehaul carriers operating within the St. Louis Gateway operate TOFC service, with the facilities normally located within the boundaries of their individual home yards. Neither Gateway Yard nor Madison Yard has TOFC facilities. Although alternative TOFC operations were discussed with each carrier operating within the study area, several carriers elected from the outset to not only retain their home yard location but also their home yard TOFC facility. Other carriers have expressed interest in a Common TOFC facility. The restructuring plan may offer the possibility of consolidating some TOFC operations into a common yard, if the traffic volumes can be adequately handled and an acceptable site located.

To date, nine carriers have expressed an interest in a Common TOFC facility: the B&O, LN, Conrail (CR), Rock Island (although the sale of its major St. Louis facilities to the St. Louis Southwestern may affect this commitment), Missouri-Pacific (MP), Missouri-Kansas-Texas (MKT), Illinois Terminal (IT), Chicago and Northwestern (CNW), and Illinois Central Gulf (ICG). These carriers currently represent 67% of the TOFC traffic within the St. Louis Gateway, and project that they will represent 72% of all Gateway TOFC traffic in the Year 2000. The major advantages to these carriers of a Common TOFC Yard include:

- Economies of scale inherent to a single large facility

- Efficiencies derived from the application of state-of-the-art technology, obtained on a shared-cost basis

- The opportunity to effect rail-to-rail interchange of TOFC traffic, i.e. without having to resort to unloading the trailers at a home yard, trucking them to another home yard, then reloading the trailers on flatcars (in what is called 'rubber interchange').

Attaining this last rail-related advantage also would work to reduce rail/community conflicts. Table I shows the effect of implementing a Common TOFC Yard on daily highway truck-miles in the study area. The 11% drop in these truck-miles as compared to the No-Build Alternative would represent a major benefit both to the area highway system and to the railroads. The study also found that some 260 tractor-semitrailer trips would be removed from the congested I-55/70 Poplar Street Bridge across the Mississippi River daily by the Year 2000, and that some 50,000-odd gallons of gasoline and/or diesel fuel would be saved annually through this reduction in truck travel within the study area.

TABLE I

Daily Highway Truck Miles Associated With TOFC Operations

No-Build Alternative	1985	2000
Truck Miles in Interchange	7,222	13,251
Truck Miles in Industry Pickup and Delivery	10,649	18,737
Total	17,871	31,988
Two-Yard, Three-Yard, and Three Yard Bidirectional Alternatives		
Truck Miles in Interchange	3,839	6,240
Change vs. No-Build	-47%	-54%
Truck Miles in Industry Pick up and Delivery	10,923	19,220
Change vs. No-Build	+2%	+2%
Total	14,762	25,360
Percent Change vs. No-Build	-17%	-11%

DESIGN

The Common TOFC Yard was designed to adequately handle the projected volumes of TOFC traffic for the nine interested railroads in the Year 2000. This amounts to about 4600 trailers entering or leaving the facility daily, about 2000 by highway, and the remainder distributed among some 40-45 trains. Train arrivals and departures would be fairly steady across the day, ranging from zero to three trains every two hours.

To handle this much traffic efficiently, the Common TOFC Yard would require:

- Four long (61-car) and seven short (27-car) "pad" tracks, for loading and unloading trailers
- Two 64-car storage tracks
- Two 64-car receiving and departure tracks (where whole trains would be put together)
- Twelve single overhead cranes for loading and unloading trailers
- Approximately 150 employees, most of whom would operate the cranes and the spotting tractors (trucks)
- A 3 million square-foot parking area, with appropriate office space and personnel support facilities in addition.

These requirements sum to a need for about 400 acres of land. Combining this need with the major rail operational need - convenient access to all mainlines - provided a basis for narrowing the range of alternative sites. The nine carriers interested in participating in the Common TOFC Yard come into the study area from the northeast, east, southeast, south, southwest, west, northwest and north, like the spokes of a wheel. Clearly, locating the Common TOFC Yard - the 400 acre 'hub' of that wheel - is a difficult task.

ALTERNATIVE SITES

From an engineering standpoint, the problems associated with site selection and construction of a TOFC Yard are basically the same whether railroad ownership is individual or joint. From an operating standpoint, however, location and yard design must provide convenient access for all participants. Based upon these mutual considerations, the following selection criteria were formulated to guide selection of possible sites for a TOFC Yard:

- Convenient access to and from mainline corridors for participating railroads
- Convenient access to and from the TOFC Yard for highway motor carriers
- Close proximity to a major classification yard
- Sufficient land for development (approximately 300-600 acres)
    - to handle projected volume of traffic
    - for storage of trailers and flat cars
    - to provide for future expansion.
- Minimum community and environmental impacts.

The Phase I studies examined, in a preliminary manner, alternative sites which could meet these criteria. Those studies settled on two alternatives:

Alternative 1:

The first alternative (see Exhibit B) would be a single large facility located in the approximately 1,100 foot wide area between the TRRA - Illinois Transfer Line and Schoenberger Creek, and extending from Illinois Route 203 and 55/70 to the northwest to the Cahokia Canal.

This location could provide relatively good access for participating carriers via Willows, Q, Rose Lake, Merchants, and McArthur Corridors. The existing highway network plus the potential for additional roadway improvements to the existing system would provide good access to highway motor carrier operators who are responsible for intercity pickup and delivery of trailers.

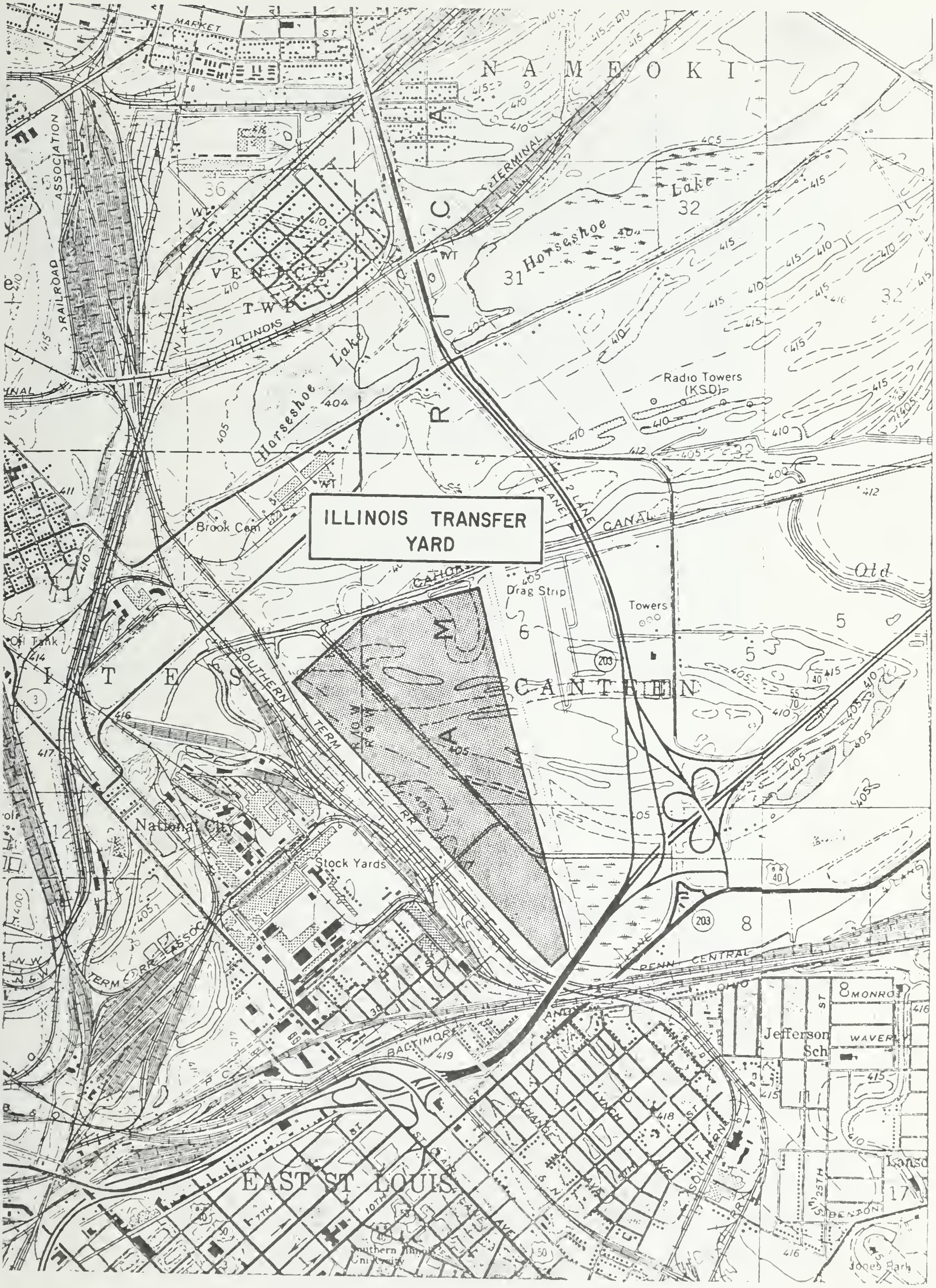

ILLINOIS TRANSFER YARD
MARKET ST
N A M E O K I
ASSOCIATION
RAILROAD
VENICE TWP
TERMINAL
ILLINOIS
Horseshoe Lake
Radio Towers (KSD)
Brook Cem
CANAL
CAHOKIA
Drag Strip
Towers
Old
CANTEEN
SOUTHERN TERM RR
Oil Tank
National City
Stock Yards
PENN CENTRAL
OHIO
BALTIMORE
TERM RR ASSOC
EXCHANGE
EAST ST LOUIS
Southern Illinois University
Jefferson Sch
MONROE
WAVERLY
BENTON
25TH
Jones Park
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EXHIBIT B

Under the Two or Three Yard plan, this location is also close to a major classification yard for rail interchange of TOFC traffic. This location has sufficient land available to construct a TOFC yard capable of handling projected volumes and also for future expansion. The community and environmental impacts associated with this site are limited, since it is now primarily agricultural land, and since few existing houses and businesses would require relocation.

A disadvantage to this location is that it lies in a low area (requiring filling before use); however, this problem can be resolved. In addition, a few scattered sites of prehistoric remains were located by archaeologists within the area. While further testing on these sites is needed, initial indications are that no major findings are present, and that mitigation of the archaeological impacts would be relatively easy to accomplish.

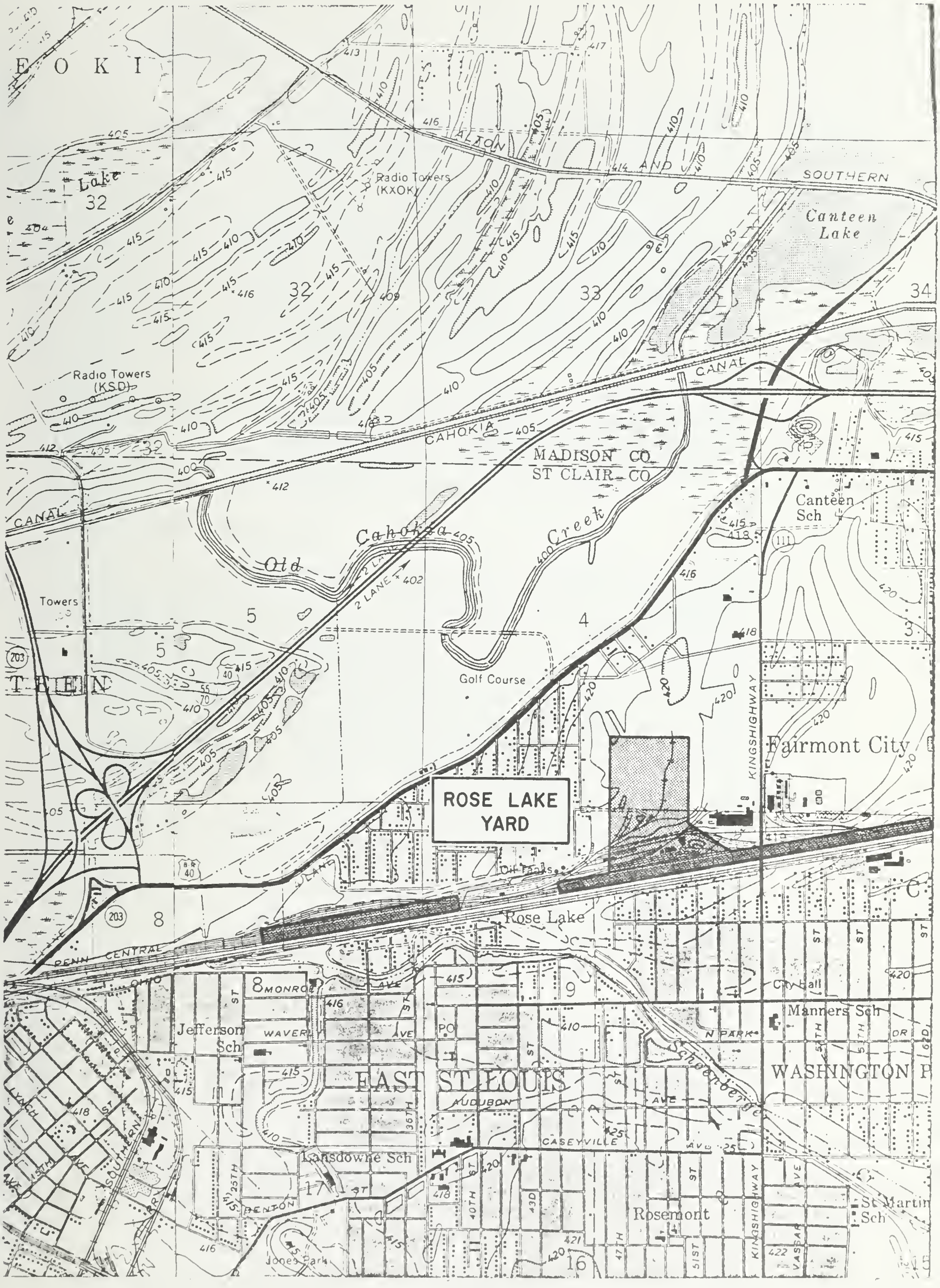
This location has been called the Illinois Transfer site, or the "Green Heron" site due to the sighting of such birds nearby. The possibility of having to mitigate the displacement of wildlife habitat and wetlands present in the area has been assessed; a more detailed biological assessment survey has been scheduled for May and June, 1981. Still, both the Department of Conservation and the Fish and Wildlife Service of the U. S. Department of the Interior have expressed the view that no insummountable obstacles to development of this site exist.

Alternative 2:

The second alternative would be TOFC facilities located at Conrail's Rose Lake Yard and at the TRRA-Illinois Transfer Line, possibly connected by a new four-lane roadway passing underneath I-70.

The Rose Lake site (Exhibit C) is located on the Rose Lake Corridor between Willows Tower and HN Cabin (see Exhibit A for locations of these rail junction control towers). Further investigation of this site in Phase II determined that this area does not have sufficient land available to be used for a Common TOFC yard (only approximately 115 acres are available). Only through severe displacement impacts in Fairmont City could this site be made sufficiently large. Further, serious archaeological impacts would be expected, since Rose Lake is located so closely to the major sites within the Cahokia Mounds State Park.

In Phase II, these sites, Conrail's Rose Lake Yard located next to Fairmont City, Illinois and the TRRA-Illinois Transfer site, termed the "Green Heron" site in Phase II, were more fully evaluated, together with an additional four locations. The additional sites are defined below:


ROSE LAKE
YARD
E O K I
Lake
Radio Towers
(KXOK)
Radio Towers
(KSD)
ALTON AND SOUTHERN
Canteen
Lake
CAHOKIA CANAL
CANAL
MADISON CO
ST CLAIR CO
Old Cahokia Creek
2 LANE
Towers
Golf Course
Canteen
Sch
Fairmont City
KINGSHIGHWAY
Oil Tanks
Rose Lake
PENN CENTRAL
OHIO
MONROE AVE
WAVERLY AVE
Jefferson
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EAST ST LOUIS
AUDUBON
CASEYVILLE AVE
Lansdowne Sch
BENTON
Jones Park
Rosemont
City Hall
Manners Sch
N PARK
WASHINGTON P
Schoenberger
St Martin
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AVE
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EXHIBIT C

Exermont:

The Exermont site (Exhibit D) is located on the Rose Lake Corridor between Willows Tower and HN Cabin. Railroad access to this location would be direct from the Rose Lake Corridor with the remaining corridors serving as tributaries. The existing highway system consists of U.S. Business Route 40 and Illinois Route 157. Utilizing Interstate 70 and portions of Interstate 270 that are now under construction, highway access could be improved (although an expensive alteration to the design of I-270 might be necessary). The community and environmental impacts associated with this site for Exermont, Caseyville and Collinsville, resulting from an increase in rail and highway traffic, would be significant.

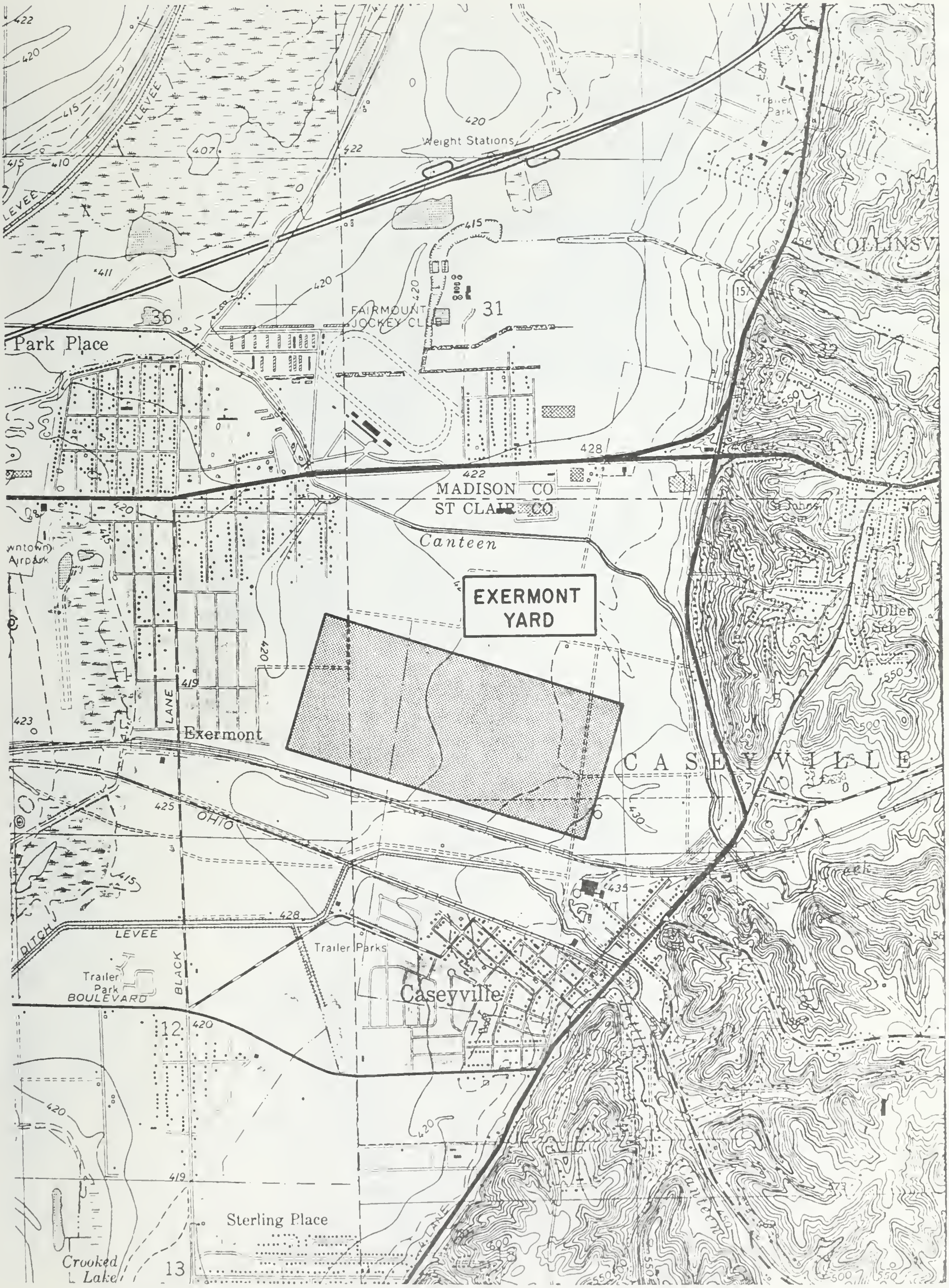
The primary environmental impact, as with the Rose Lake site, would be archaeological. Teams of archaeologists working on the Interstate 270 alignment have discovered a wealth of prehistoric sites in the area. Extensive mitigation would be required to resolve this problem.

Military Reservation:

The Military Reservation (Exhibit E) is located on the west side of the Q Corridor between WR Tower and the grade separated intersection of the Merchants and Q Corridors (i.e. in the northwest quadrant of the Illinois Route 3 and Merchants Bridge intersection). Railroad access to this location would be direct from Q Corridor with the remaining corridors serving as tributaries. Rail access would be poor, with the B&O and LN in particular suffering from adverse travel to reach the site from their mainlines. The existing highway access to this location is limited; however, this situation could be improved somewhat by relocating Illinois Route 3 south of this area. The community and environmental impacts associated with this area are minimal. The primary environmental impact of the site would be the fact that much of it covers a U.S. Army strategic reserve of bauxite. As of the time of this writing, it appears that this tract of land could be available for development, and this location is being reviewed as a site for industrial expansion.

Stallings:

The Stallings site (Exhibit F) is located north of the Illinois Terminal Company, east of the A&S Corridor, and on the east side of Illinois Route 111 (actually outside of the overall project study area). Railroad access would be direct off the CNW and NW railroads with the remaining corridors serving as tributaries. Highway access to this location from the south is limited. However, from the north motor carriers would have direct access from


EXERMONT
YARD
Weight Stations
Trailer Park
COLLINSV
FAIRMOUNT
JOCKEY CLUB
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MADISON CO
ST CLAIR CO
Canteen
Downtown
Airpark
Exermont
CASEYVILLE
OHIO
LEVEE
DITCH
BLACK
LANE
BOULEVARD
Trailer Parks
Trailer
Park
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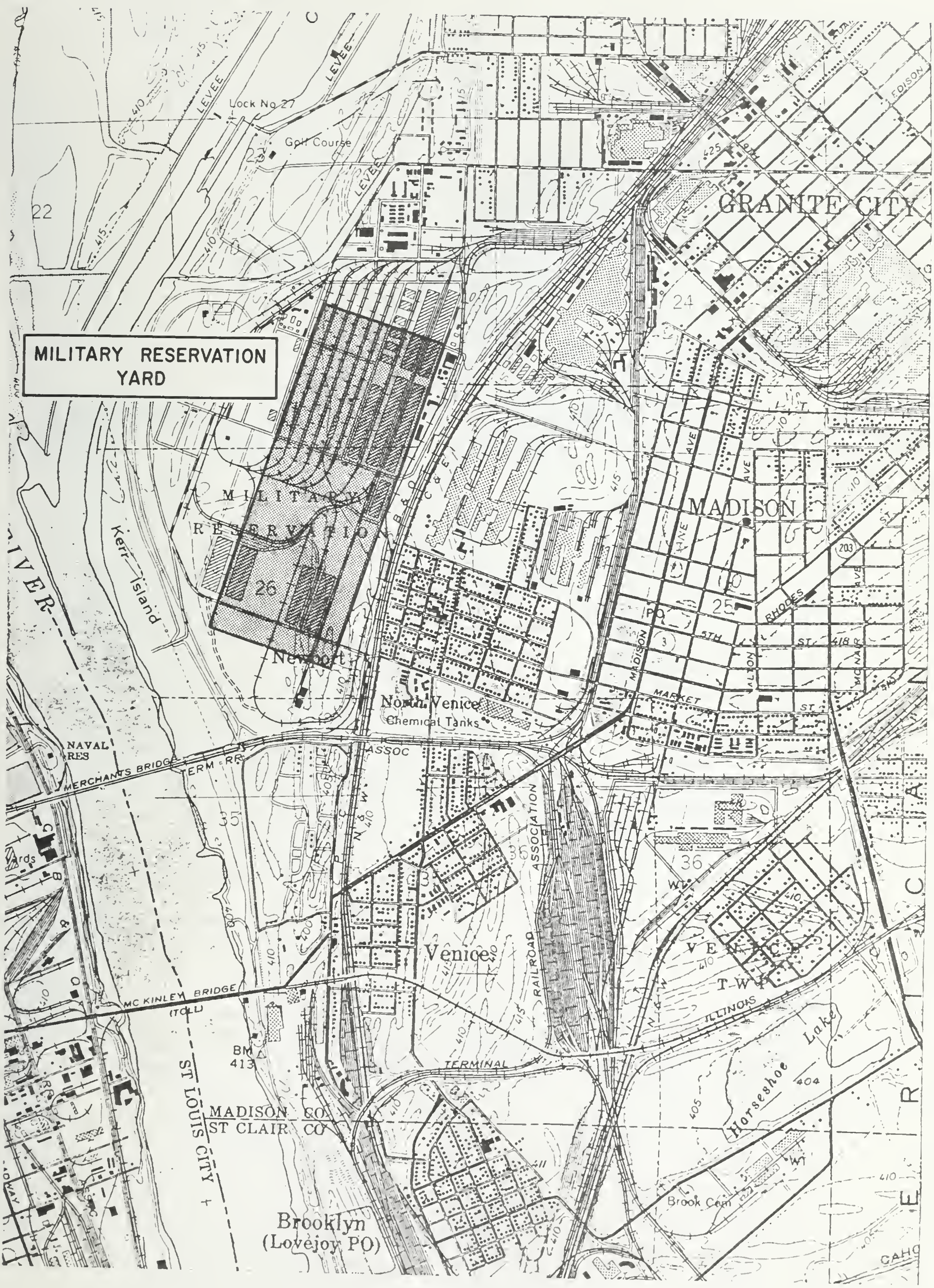
EXHIBIT D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YARD
GRANITE CITY
MADISON
MILITARY RESERVATION
Lock No 27
Golf Course
LEVEE
Kerr Island
RIVER
Newport
North Venice
Chemical Tanks
NAVAL RES
MERCHANTS BRIDGE
TERM RR
ASSOC
RAILROAD
ASSOCIATION
Venice
VENICE TWP
MC KINLEY BRIDGE
(TOLL)
BM 413
TERMINAL
ILLINOIS
Horseshoe Lake
MADISON CO
ST CLAIR CO
ST LOUIS CITY
Brooklyn
(Lovejoy PO)
Brook Cem
MADISON AVE
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5TH ST
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EXHIBIT E

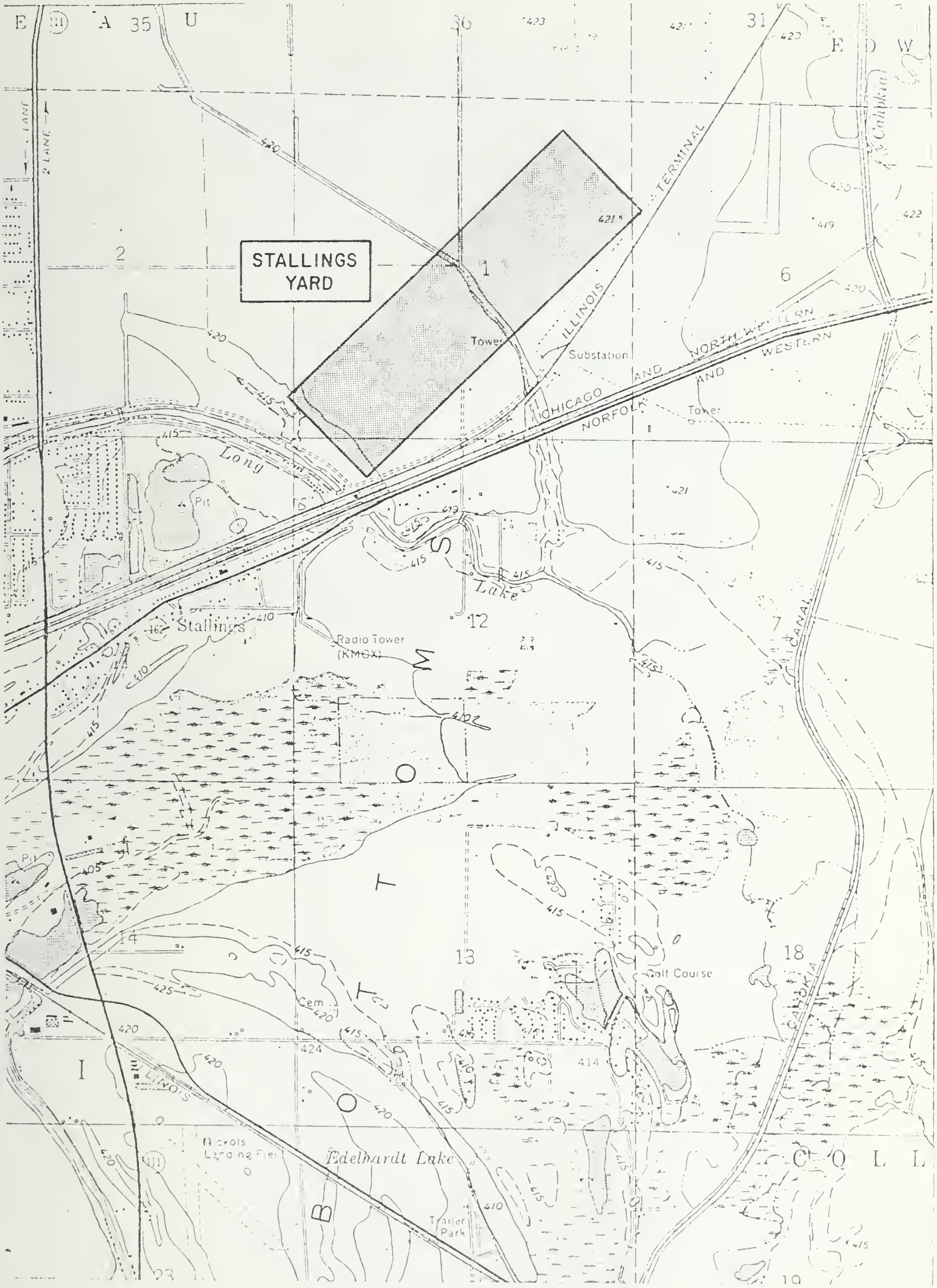
STALLINGS YARD
Tower
Substation
ILLINOIS TERMINAL
CHICAGO AND NORTH WESTERN
NORFOLK AND WESTERN
Tower
Long Lake
Pit
Stallings
Radio Tower (KMOX)
Pit
Cem
Golf Course
Edelhardt Lake
Nichols Landing Field
Trailer Park
CANAL
CAHOKIA
Cahokia
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EXHIBIT F

Interstate 270. A disadvantage to this location is that it lies in a remote position in relation to a major rail classification yard. The community and environmental impacts associated with this area appear to be minimal (although no archaeological reconnaissence was performed in this area, and it is likely, drawing from past work in the area, that some sites of prehistoric interest would be discovered). In addition, the impacts of the major transfer moves from this site to a major classification yard would need to be studied further.

ICG Valley Yard:

The ICG Valley Yard site (Exhibit G) is located east of the MP mainline, south of the ICG Yard, and north of the Bi-State Parks Airport. Railroad access to this location could be provided via the McArthur, Dupo, Q, and A&S Corridors. However, B&O access to the area would be difficult to arrange. Further, with the proposed expansion of Gateway Yard and the operations of the SSW and ICG Yards, this would be a congested area. The existing highway access to the area suffers from delay due to many rail movements crossing at grade. The development of Interstate 270, just east of this area, could improve highway access somewhat. The community and environmental impacts resulting from development of this area and from increased rail and highway traffic, would be significant.

This site lies in a low area. An extensive drainage program would be required, since the area is subject to heavy flooding. Another environmental consideration is that archaeological teams have uncovered a significant number of prehistoric sites that could impact construction and expansion of a TOFC yard in this area. Finally, this area has been proposed as a site for industrial development, moving north from Bi-State Parks Airport.

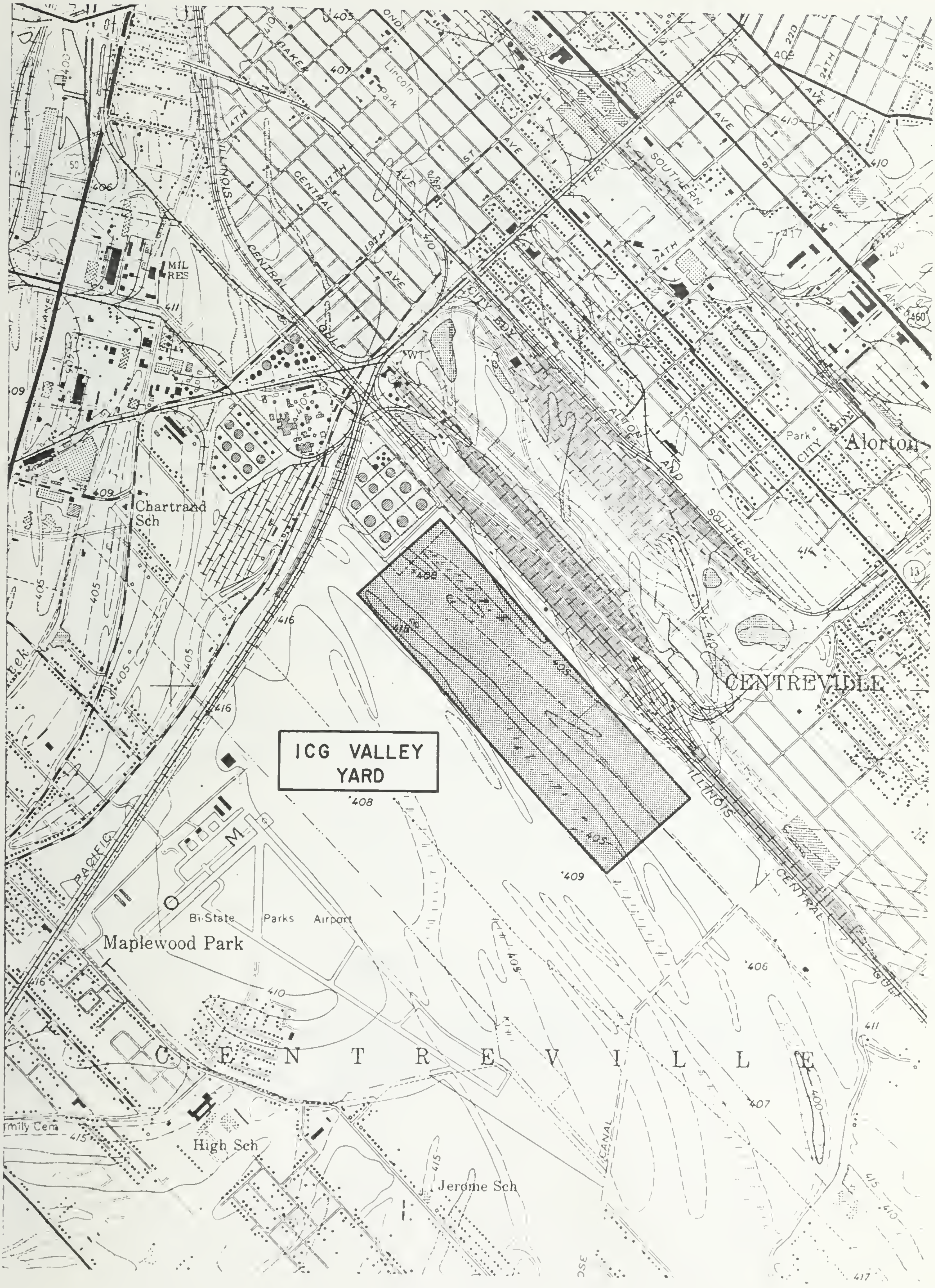

ICG VALLEY YARD
Chartrand Sch
MIL RES
Lincoln Park
Alorton
Park
CENTREVILLE
Maplewood Park
Bi-State Parks Airport
C E N T R E V I L L E
High Sch
Jerome Sch
ILLINOIS CENTRAL GULF
ALTON AND SOUTHERN
TERM RR
CITY BDY
PACIFIC
CANAL
WT
Park City Bdy
405
408
409
410
416

EXHIBIT C

EVALUATION

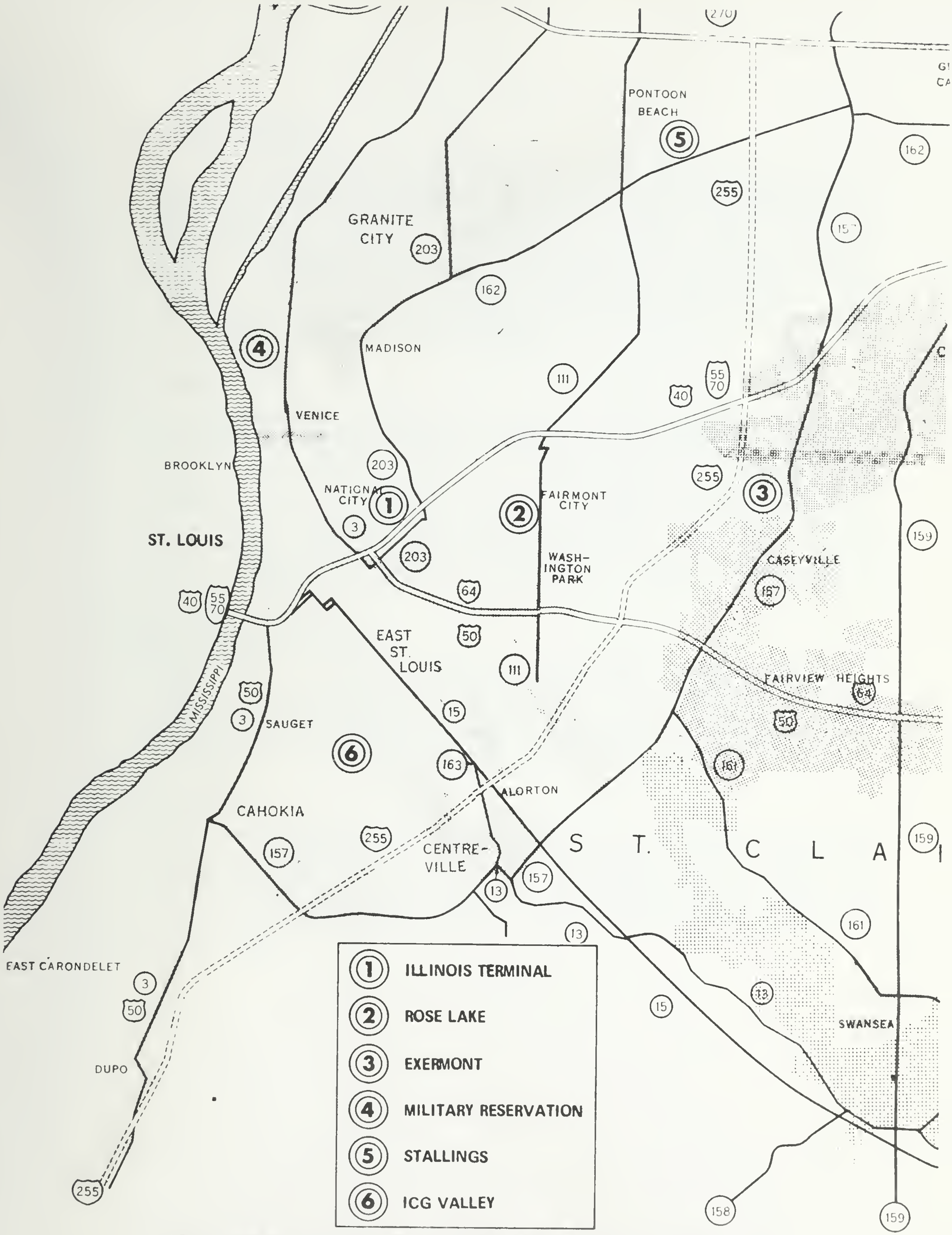
The efficiencies inherent to the Common Yard make it a prime candidate element for early implementation. The rail operational analyses conducted in Phase II, and fully-documented in a Technical Supplement to the Environmental Impact Statement, have demonstrated that the annual benefits of a Common TOFC Yard (i.e., the decrease in operations costs projected for the "No-Build" Alternative) sum to $10.5 million. The capital cost of the Common TOFC Yard has meanwhile been estimated at $48.3 million. This indicates a simple return-on-investment of over 20%.

In addition, implementing the Common TOFC Yard would result in decreased rail/community conflicts, first by reducing total truck travel within the study area through allowing the rail-to-rail interchange of trailers, and second by concentrating truck-piggyback traffic at one site only a short distance off of Interstate 55/70, particularly reducing truck travel on local streets. Finally, implementing the yard also would address the goal of providing opportunities for economic development, by freeing prime land along the Mississippi Riverfront.

The six alternative locations, as shown on Exhibit H, exhaust the range of sites available (i.e., while some minor changes in site location could be proposed, the range of possibilities and impacts has been defined). Each site possesses advantages and disadvantages, as noted above. Five of the six alternatives have been discarded in favor of a recommendation of the Green Heron site, however. The reasons for this are summarized below, by alternative:

Rose Lake (Phase I Alternative 2):

This location was discarded simply because it lacks sufficient land area. Only 115 acres are currently available, as opposed to the 400 acres required. Further expansion of the Rose Lake facilities would require severe displacement impacts and probable significant archaeological impacts.



ALTERNATIVE SITES: COMMON TOFC FACILITY

EXHIBIT H

ICG Valley Yard:

The area encompassed by this location is not amenable to use as a Common TOFC facility because of drainage problems, the prevalence of archaeological remains (with nine sites of prehistoric remains discovered in a partial reconnaissence survey), and the local intention to use the area for an industrial park. Further, highway access is not good, particularly from Missouri, which would greatly increase truck traffic on local streets, and rail access is not satisfactory, due to the congestion in rail operations in the area and adverse travel for several carriers.

Exermont Yard:

The plentitude of archaeological sites in this location (see Final Environmental Impact Statement, Federal-Aid Interstate 270 (formerly 255), dated October 27, 1977) is a primary factor in rejecting it, as are the impacts of implementation in the area on the communities of Caseyville and Collinsville, Illinois. Further, implementation of this location would probably require redesign or rebuilding of the new Interstate 270 and still provides poor rail access (being located so far - actually outside of the study area - from the Gateway hub of rail activities).

Military Reservation:

Again, poor rail access, requiring adverse and circuitous routing of trains, is a primary factor in discarding this alternative. Adverse impacts on the communities of Granite City and North Venice related to increased train and truck traffic also present problems, as does the location of a strategic reserve at this site.

Stallings:

Lastly, the location had to be discarded due to its inaccessibility to many of the nine carriers of interest, particularly the B&O and LN, the relocation of which is a prime purpose of the Common TOFC Yard in the first place. Wetlands, prime agricultural lands, and sites of archaeological significance would also be adversely impacted at this site.

RECOMMENDATION AND CONCLUSION

The best, and probably only viable, site found for the implementation of a Common TOFC facility is the Green Heron location described above. There, the 400-acre rail yard and support facilities could be constructed (see Figure 1) and operated with minimum socio-economic and environmental impacts. The site currently is agricultural, with the exception of two businesses, a 'drag-strip' named the "St. Louis International Raceway", and a discotheque named "Stages". The dragstrip is seasonally-operated, and covers 85 acres (paying less than $900 in property tax in 1979). The businesses have a joint employment of 10-20 employees. Sufficient vacant land is available nearby for relocation.

Ecologically, the Green Heron site is one of the most sensitive of all the land involved in the overall restructuring project. The habitats involved include wetland, stream (Schoenberger Creek), cultivated field, old field and urban. Table 2 summarizes the ecological impacts and suggests mitigative measures. It has been abstracted from the Natural Systems Technical Supplement to the EIS, which should be consulted for more details.

The wetland in the southwest corner of the site is presently being filled with crushed non-metallic automobile scrap. However, the vegetation consists primarily of cattails and lacks the diversity of associated wetland vegetation. Evidence of wildlife using the wetlands, as noted during site reconnaissance, includes green herons, red-wing black birds, muskrats, etc. No threatened or endangered species were encountered during reconnaissence, and all species sighted are capable of moving to other areas without significant impact.

There will be a complete loss of 57 acres of wetlands due to filling for the rail yard and TOFC parking lot. Planning for mitigation of this impact has been coordinated with the Illinois Department of Conservation and the Fish and Wildlife Service of the U.S. Department of the Interior. A more detailed biological assessment survey of the area, to document the presence or absence of threatened or endangered species, has been scheduled, but those agencies see no insurmountable obstacles to development of this site.

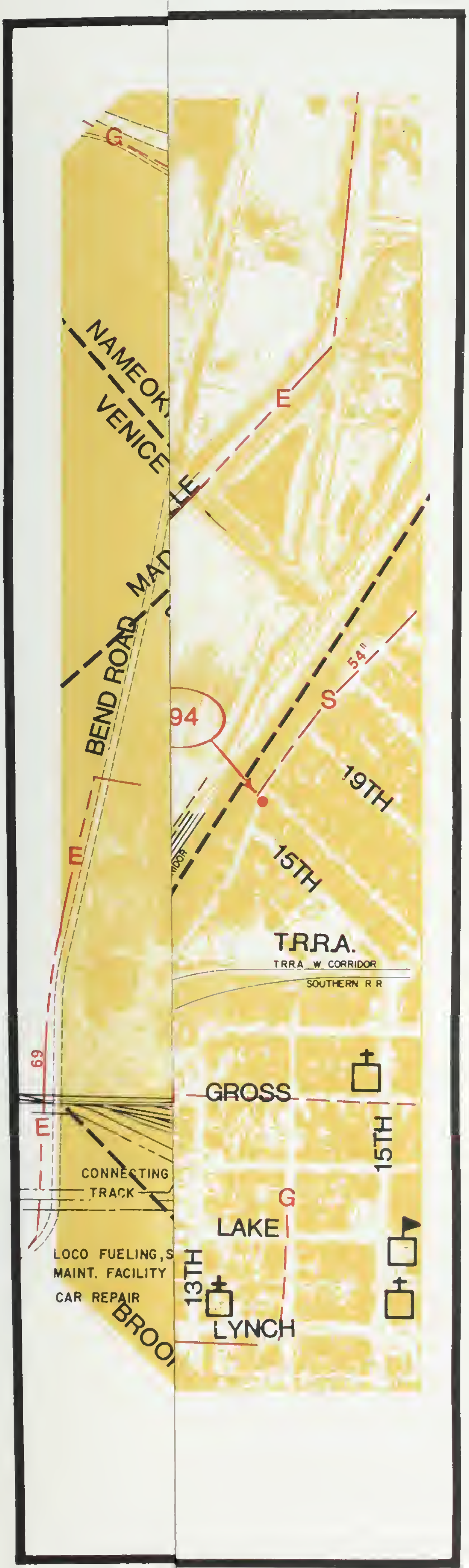
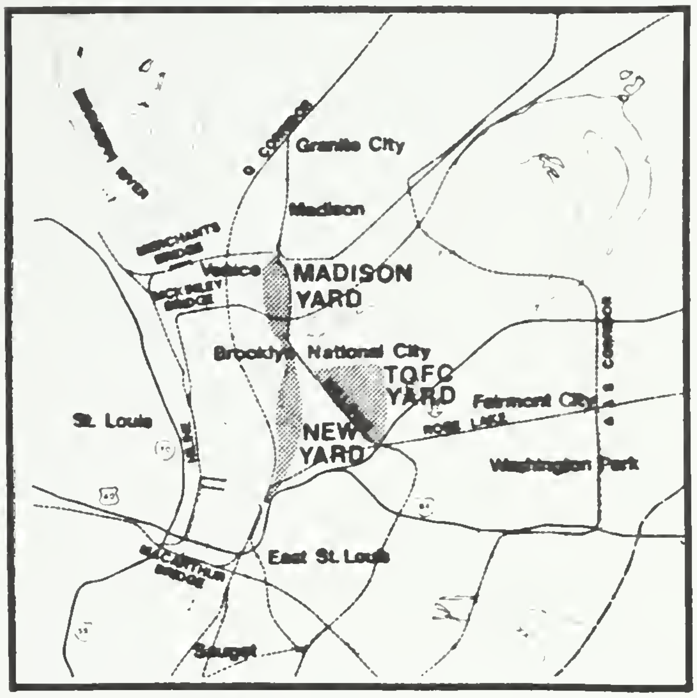


FIGURE 1

TOFC / COFC YARD

TWO YARD ALTERNATIVE
THREE YARD ALTERNATIVES



VICINITY MAP

LEGEND

RAILROAD TRACK	——
CITY LIMITS	— — —
R.O.W. ACQUISITION	— - —
PROPOSED CULVERT	⊐⊏
SCHOOL	⚑
CHURCH	✝
NOISE RECEPTOR	●
ELECTRIC	— — — E — — —
GAS	— — G — —
WATER	— — W — —
SEWER	— — S — —

800 400 0 800

SCALE IN FEET

ST. LOUIS MARGE PROJECT
SVERDRUP/ENVIRODYNE/KNIGHT

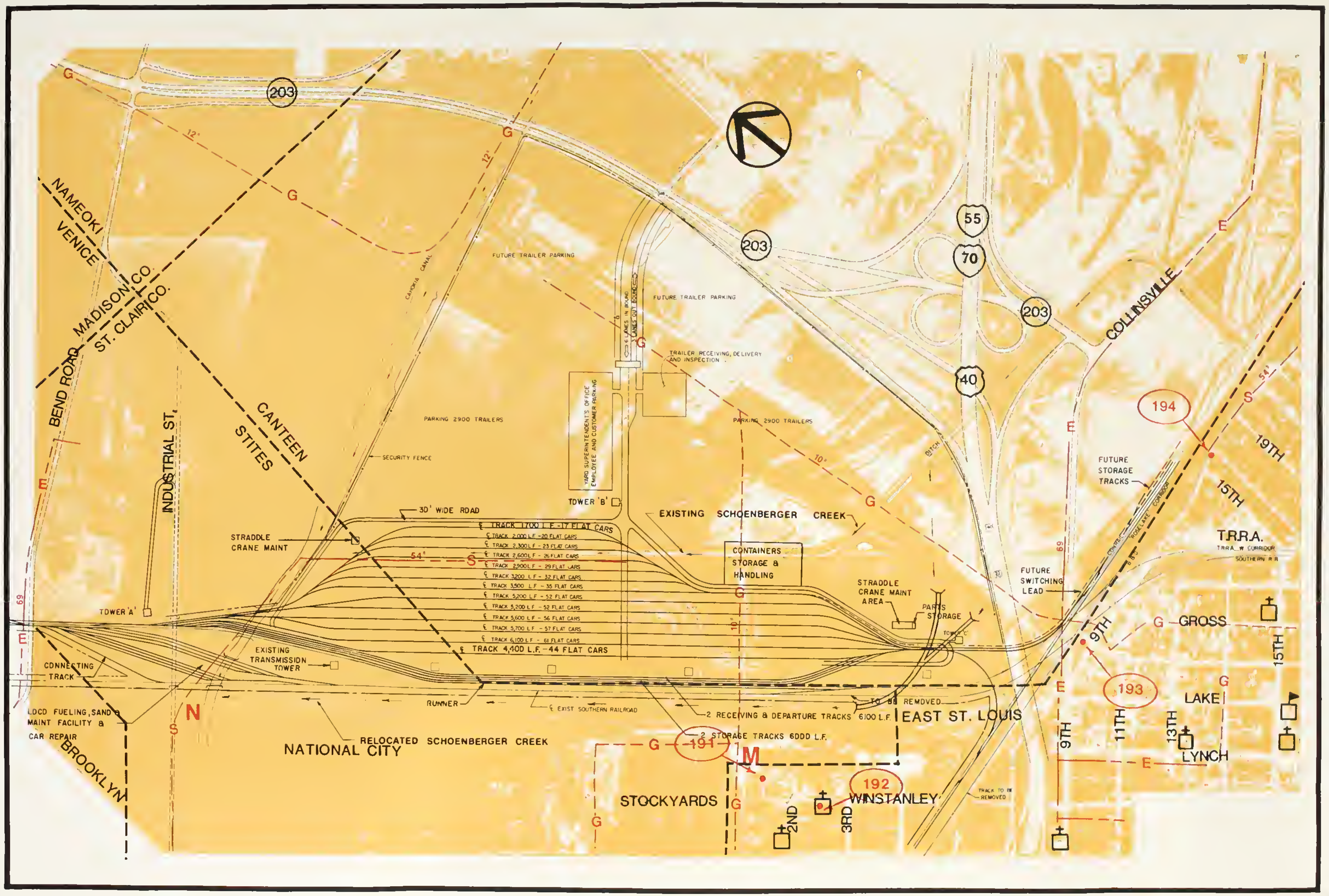
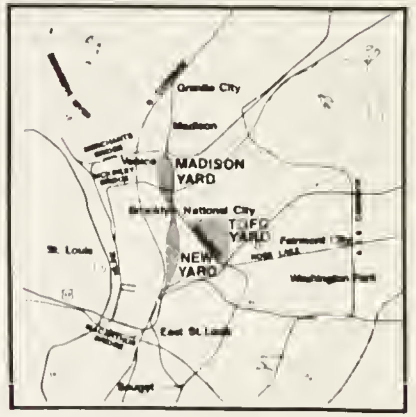

203
203
203
55
70
40
G
12'
12'
G
G
NAMEOKI
VENICE
MADISON CO.
ST. CLAIR CO.
BEND ROAD
INDUSTRIAL ST.
CANTEEN
STITES
CAHOKIA CANAL
FUTURE TRAILER PARKING
FUTURE TRAILER PARKING
6 LANES IN BOUND
6 LANES OUT BOUND
TRAILER RECEIVING, DELIVERY AND INSPECTION
PARKING 2900 TRAILERS
PARKING 2900 TRAILERS
YARD SUPERINTENDENT'S OFFICE EMPLOYEE AND CUSTOMER PARKING
SECURITY FENCE
TOWER 'B'
30' WIDE ROAD
EXISTING SCHOENBERGER CREEK
10'
DITCH
COLLINSVILLE
E
E
194
54'
S
19TH
15TH
FUTURE STORAGE TRACKS
T.R.R.A.
TRRA W CORRIDOR
SOUTHERN R.R.
CENTRAL CORRIDOR
ROSE LAKE CORRIDOR
STRADDLE CRANE MAINT
54'
S
TRACK 1700 L.F. - 17 FLAT CARS
TRACK 2,000 L.F. - 20 FLAT CARS
TRACK 2,300 L.F. - 23 FLAT CARS
TRACK 2,600 L.F. - 26 FLAT CARS
TRACK 2,900 L.F. - 29 FLAT CARS
TRACK 3,200 L.F. - 32 FLAT CARS
TRACK 3,500 L.F. - 35 FLAT CARS
TRACK 5,200 L.F. - 52 FLAT CARS
TRACK 5,200 L.F. - 52 FLAT CARS
TRACK 5,600 L.F. - 56 FLAT CARS
TRACK 5,700 L.F. - 57 FLAT CARS
TRACK 6,100 L.F. - 61 FLAT CARS
TRACK 4,400 L.F. - 44 FLAT CARS
CONTAINERS STORAGE & HANDLING
G
10'
STRADDLE CRANE MAINT AREA
PARTS STORAGE
TOWER 'C'
FUTURE SWITCHING LEAD
69
9TH
G
GROSS
15TH
E
193
G
LAKE
TOWER 'A'
69
E
E
CONNECTING TRACK
EXISTING TRANSMISSION TOWER
RUNNER
EXIST SOUTHERN RAILROAD
TO BE REMOVED
2 RECEIVING & DEPARTURE TRACKS 6100 L.F.
EAST ST. LOUIS
2 STORAGE TRACKS 6000 L.F.
LOCO FUELING, SAND & MAINT FACILITY & CAR REPAIR
BROOKLYN
S
N
NATIONAL CITY
RELOCATED SCHOENBERGER CREEK
G
191
M
G
G
STOCKYARDS
G
192
WINSTANLEY
2ND
3RD
TRACK TO BE REMOVED
9TH
11TH
13TH
E
LYNCH

FIGURE 1

TOFC / COFC YARD

TWO YARD ALTERNATIVE
THREE YARD ALTERNATIVES



VICINITY MAP

LEGEND

RAILROAD TRACK
CITY LIMITS
R.O.W. ACQUISITION
PROPOSED CULVERT
SCHOOL
CHURCH

NOISE RECEPTOR ●

ELECTRIC —E—
GAS —G—
WATER —W—
SEWER —S—

800 400 0 800
SCALE IN FEET

ST. LOUIS MARGE PROJECT
SVERDRUP/ENVIRODYNE/KNIGHT

TABLE 2

IMPACTS ON NATURAL ECOLOGICAL SYSTEMS OF THE COMMON TOFC YARD AT THE GREEN HERON SITE (ALL BUILD ALTERNATIVES)

Affected Habitats	Short-Term Impacts	Long-Term Impacts	Lands Altered or lost	Potential for Affecting Threatened or Endangered Species	Suggested Mitigation Measures
Wetland	Disruption-filling	Complete loss	57 acres	Medium	Purchase area of comparable size in American Bottoms and construct wetland - contribute to Horseshoe Lake Conservation Program. Revegetate unused lands - use vegetative buffers and erosion control.
Stream (Schoneberger Creek)	Disruption-siltation increased turbidity	Partial loss of aquatic and riparian habitat	1-1/3 mile	High	Reroute as surface water to Cahokia Canal. Revegetate with appropriate riparian vegetation. Perform construction during dry months. Use erosion control.
Old Field	Disruption	Partial loss	190 acres	Medium	Revegetate unused areas not being used-between track, yard borders, etc.
Cult. Field	Disruption	Partial loss	80 acres	Medium	" "
Urban	Disruption	Partial loss	20 acres	High	" "
Prime Farmland	Disruption-filling	Complete loss	105 acres	Low	None available

Schoenberger Creek bisects the yard in a north-south direction for approximately 1-1/3 miles. There is a significant amount of riparian (stream-side) vegetation, aquatic vascular forms, and wetland fauna using the creek. However, the water maintains a distinct orange color which is transmitted to the aquatic and riparian vegetation. There will be a complete loss of this stream habitat due to rerouting of the stream around the yard perimeter. Short-term impacts will include a temporary disruption and loss of stream habitat. Long-term impacts will be negligible and the stream ecosystem even enhanced with revegetation, structuring and rerouting of the stream.

The cultivated field and old field habitats are similar in floral and faunal composition to those surrounding Madison Yard and vary in size only. There would be a complete loss of cultivated fields and a partial loss of old field and urban habitats which are presently being used as a non-licensed refuse dump and tractor-trailer repair facility. There is the potential for affecting threatened or endangered species by filling this area; however, there were none encountered during site reconnaissance and human disturbance prior to construction has been very great. Even if this potential were to be realized, the long-term impacts would be negligible with proper mitigation.

A major impact of the Common TOFC Yard will be the complete loss of 105 acres of prime farmland. No prudent and feasible alternative to this displacement exists, and there is no mitigative measures which could be taken. This impact is further discussed in the Natural Systems Technical Supplement to the EIS.

It is believed that no insurmountable obstacles to the implementation of a Common Trailer-on-Flatcar Yard at the Green Heron site exists. It is recommended as the selected alternative.

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